

AGREEMENT NUMBER
10-422

REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

Air Resources Board (ARB, CARB, State)

CONTRACTOR'S NAME

California Energy Commission (CEC, Contractor)

2. The term of this Agreement is: June 1, 2011 through March 31, 2012

3. The maximum amount of this Agreement is: **\$ 100,000.00**
One Hundred Thousand Dollars and Zero Cents

4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement.

Exhibit A – Scope of Work 4 pages

Exhibit B – Budget Detail and Payment Provisions 1 page

Exhibit C* – General Terms and Conditions GIA 610

Exhibit D - Special Terms and Conditions 1 page

Items shown with an Asterisk (), are hereby incorporated by reference and made part of this agreement as if attached hereto.*

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR

CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.)

California Energy Commission

BY (Authorized Signature)



DATE SIGNED (Do not type)

PRINTED NAME AND TITLE OF PERSON SIGNING

John Butler, Manager, Contracts Office

ADDRESS

1516 Ninth Street
Sacramento, CA 95814

STATE OF CALIFORNIA

AGENCY NAME

Air Resources Board

BY (Authorized Signature)



DATE SIGNED (Do not type)

PRINTED NAME AND TITLE OF PERSON SIGNING

Socorro Watkins, Chief, Business Management Branch

ADDRESS

1001 I Street, 20th Floor, Sacramento, CA 95814

**California Department
of General Services
Use Only**

☐ Exempt

EXHIBIT A **SCOPE OF WORK**

I. BACKGROUND

Assembly Bill 1318 (AB 1318, Perez, Chapter 285, Statutes of 2009) requires the Air Resources Board (ARB), in consultation with the California Energy Commission (CEC), California Public Utilities Commission (CPUC), California Independent System Operator (CAISO), and the State Water Resources Control Board (SWRCB), to prepare a report for the Governor and Legislature that evaluates the electrical system reliability needs of the South Coast Air Basin. The report is to include recommendations for meeting those reliability needs while ensuring compliance with state and federal law. Specifically, if it is determined that additional fossil-fueled generation facilities are needed, given the current air quality permitting issues relative to availability of emission offsets facing power plants under the South Coast Air Quality Management District's (SCAQMD) current program, the report is to include recommendations for long-term emission offset availability and options to ensure sustainable permitting of additional needed capacity. The report was due July 1, 2010. ARB staff did not meet the July 2010 deadline to produce a comprehensive electric reliability and offset assessment report, and the revised target timeframe for completion of this comprehensive report is the end of 2011. This path forward was approved by Governor Schwarzenegger's administration.

Reasons for the delay are based on a consensus view of staff from the ARB, CEC, CPUC, and CAISO that the original timeframe under AB 1318 is not sufficient and existing studies, completed or underway, are inadequate to answer the expectations of AB 1318. This extended timeframe is allowing agency staff to conduct more detailed studies and incorporate a full public process. The study work and additional time will provide a more robust analysis that (1) extends out to 2020, which is an appropriate timeframe for a long-term electric reliability study; (2) evaluates the extent to which demand-side policy options, renewable, and transmission development can reduce requirements for in-basin generation development; (3) fully assesses potential aggregated impacts on transmission reliability due to once-through cooling (OTC) generators' actions to comply with SWRCB policy; and (4) provides a full range of options for increasing offset availability in SCAQMD, consistent with the results of the electric reliability assessment.

The ARB, CEC, CPUC, and CAISO have been working together on this project and have developed a Work Plan to guide the tasks required to complete the final report. The critical component of this report is the electrical needs assessment. The work required to fulfill the electrical needs assessment portion is outside the technical abilities of ARB staff, and therefore ARB staff is relying on the expertise and current resources of the CEC, CPUC, and CAISO to perform the necessary analysis and modeling. The CEC, CPUC, and CAISO resources needed for AB 1318 are also already committed to several other important planning and policy forums, and this is threatening to delay the project schedule beyond 2011. The CEC, CPUC, and CAISO have agreed that acquiring the services of an outside consultant will help quicken the pace of the assessment and help provide a more thorough scope of analyses beyond what agency staff can achieve on their own. Work shall be performed under Agreement No. 400-07-032 between Aspen Environmental (Navigant Consulting) and the CEC. All deliverables will be provided to CEC. CEC will provide a final copy of all deliverables to ARB. The funding provided by ARB will enable the CEC to amend its contract with Navigant Consulting to provide assistance to the AB 1318 project team on transmission system assessments and other related tasks.

II. SCOPE OF WORK

The CEC will oversee work performed by Aspen Environmental (Navigant Consulting), which will consist of the following tasks in furtherance of the development the AB 1318 report:

EXHIBIT A
SCOPE OF WORK

- Task 1: Provide assistance in translating renewable project development scenario assumptions into bus assignments for use in power flow and stability studies.

Due Date: No later than end of August 31, 2011.

- Task 2: Provide assistance in developing positive sequence load flow (PSLF) power flow and stability model base cases for CPUC renewable portfolio standard (RPS) scenarios by removing unique assumptions for renewable project development and associated transmission interconnections from an existing case (e.g., the 2011 Transmission Planning Process [TPP] hybrid scenario or 2010 California Transmission Planning Group [CTPG] base case), and inserting the unique elements of a specific RPS scenario.

Due Date: No later than end of August 31, 2011.

- Task 3: Test, and if necessary correct, initial power flow and stability model base cases developed in Task 2 and deliver final product to the energy agencies (CAISO, CPUC, CEC) for evaluation.

Due Date: No later than end of August 31, 2011.

- Task 4: Provide assistance in translating demand-side policy initiatives into load bus peak demand reductions on a bus-by-bus basis including, but not limited to the following policies:
 - Task 4(a): incremental energy efficiency
 - Task 4(b): combined heat and power
 - Task 4(c): distributed generation (other than combined heat and power)
 - Task 4(d): demand response programs

Due Date: No later than end of August 31, 2011.

- Task 5: Provide assistance in developing PSLF power flow and stability model base cases for one or more of the demand-side policy initiatives assessed in Tasks 4(a) – 4(d) by removing unique assumptions for demand-side impacts from an existing case, (e.g., a 2011 TPP basecase or 2010 CTPG base case), and inserting the unique elements of a specific demand-side scenario.

Due Date: No later than end of August 31, 2011.

- Task 6: Test, and if necessary correct, initial power flow and stability model base cases developed in Task 5 and deliver final product to the energy agencies for evaluation.

Due Date: No later than end of October 15, 2011.

- Task 7: Conduct power flow and stability contingency assessments using PSLF for scenarios and sensitivities as directed, including but not limited to:

EXHIBIT A **SCOPE OF WORK**

- Task 7(a): one or more RPS or demand-side policy scenarios developed in Tasks 3 and Task 6;
- Task 7(b): sensitivities to scenarios developed and assessed by the CAISO staff; and
- Task 7(c): studies examining the Los Angeles Department of Water and Power (LADWP) balancing authority area.

Due Date: No later than end of October 15, 2011.

- Task 8: Provide assistance to the CAISO in comparing results of PSLF power flow and stability assessments conducted in Task 7 with results assessed by CAISO staff for other scenarios.

Due Date: No later than end of October 15, 2011.

- Task 9: Develop documentation of work untaken in Tasks 1-8 that would enable a competent transmission engineer to replicate the work.

Due Date: No later than end of December 31, 2011.

- Task 10: Provide assistance to AB 1318 project team to translate capacity requirements, expected operating profiles and emission factors into a range of aggregate emissions that has to be supported by criteria pollutant offsets (emission reduction credits, internal offsets for exempt projects or other mechanisms)

Due Date: No later than end of December 31, 2011.

- Task 11: Develop overall project documentation for the general electricity resource planning audience and participate in meetings with energy agency staff or other knowledgeable stakeholders to discuss inputs, methods and results.

Due Date: No later than end of December 31, 2011.

Additional tasks and/or refinement of the tasks described above may be included upon mutual agreement between the agencies as project needs dictate.

The total contract amount will be apportioned amongst the tasks as follows:

- Tasks 1, 2, and 3: \$15,000
- Tasks 4, 5, and 6: \$40,000
- Tasks 7 and 8: \$30,000
- Tasks 9, 10, and 11: \$15,000

III. The project representatives during the term of this agreement will be:

Requesting Agency:	Air Resources Board	Requesting Agency:	California Energy Commission
Section/Unit:	Stationary Source Division	Section/Unit:	Electricity Supply Analysis Division
Attention:	Stephanie Kato	Attention:	Michael Jaske
Address:	1001 I Street, 6 th Floor Sacramento, CA 95814	Address:	1516 Ninth Street Sacramento, CA 95814
Phone:	(916) 324-1840	Phone:	(916) 654-4777
Fax:	(916) 445-5023	Fax:	(916) 654-4559
E-mail:	skato@arb.ca.gov	E-mail:	mjaske@energy.state.ca.us

EXHIBIT A
SCOPE OF WORK

Direct all administrative inquiries to:

Requesting Agency:	Air Resources Board	Requesting Agency:	California Energy Commission
Section/Unit:	Contract & Procurement Services Section	Section/Unit:	Contracts Office
Attention:	Sue Bayoneta	Attention:	Andrew Ferrin
Address:	1001 I Street, 20 th Floor Sacramento, CA 95814	Address:	1516 Ninth Street Sacramento, CA 95814
Phone:	(916) 322-2208	Phone:	(916) 654-4921
Fax:	(916) 327-2940	Fax:	
E-mail:	sbayonet@arb.ca.gov	E-mail:	aferrin@energy.state.ca.us

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

1. Invoicing and Payment

- A. Upon receipt of an invoice in the amount of \$100,000, the ARB will provide funding to the CEC to support the development of a report that evaluates the electrical system reliability needs of the South Coast Air Basin as required by Assembly Bill 1318.

The total contract amount will be apportioned amongst the tasks as follows:

Tasks 1, 2, and 3:	\$15,000
Tasks 4, 5, and 6:	\$40,000
Tasks 7 and 8:	\$30,000
Tasks 9, 10, and 11:	\$15,000
Total agreement	\$100,000

- B. The invoice shall include the Agreement Number and shall be submitted in triplicate to:

Air Resources Board
Accounting Section
P.O. Box 1436
Sacramento, CA 95812

2. Budget Contingency Clause

- A. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
- B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an agreement amendment to Contractor to reflect the reduced amount.

3. Prompt Payment Clause

Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.

4. Advance payments shall be made in accordance section 8453 of the State Administrative Manual and Government Code section 11257.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

1. Termination

- A. This Agreement may be cancelled at any time by either party, upon thirty (30) days written notice to the other party.
- B. In the case of early termination, the performing agency will submit an invoice in triplicate and a report in triplicate covering services to termination date, following the invoice and progress report requirements of this Agreement. A copy and description of any data collected up to termination date will also be provided to ARB.
- C. Upon receipt of the invoice, progress report, and data, a final payment will be made to the performing agency. This payment shall be for all ARB-approved, actually incurred costs in accordance with Exhibits A and B, and shall include labor, and materials purchased or utilized (including all non-cancellable commitments) to termination date, and pro rata indirect costs as specified in the proposal budget.

2. Disputes

- A. ARB reserves the right to issue an order to stop work in the event that a dispute should arise, or in the event that the ARB gives the performing agency a notice that this Agreement will be terminated. The stop-work order will be in effect until the dispute has been resolved or this Agreement has been terminated.
- B. Any dispute concerning a question of fact arising under the terms of this Agreement which is not disposed of within a reasonable period of time by agency employees normally responsible for the administration of this agreement, shall be brought to the attention of the Executive Officer or designated representative of each agency for joint resolution.

3. Amendments

ARB reserves the right to amend this agreement for additional time and/or additional funding.